

## **Milestones: 100+ Years of Promoting Clean Water, Healthy Aquatic Ecosystems and Abundant Recreation**

### **1892**

- Naturalist John Muir, who spent his formative years exploring the woods and waters near Portage, Wis., founds the Sierra Club and is elected its first president. Muir, who convinced Congress to establish Yosemite National Park, leads the club's first conservation campaign – an effort to defeat a proposed reduction in Yosemite's boundaries.

### **1903**

- Wisconsin State Supreme Court, in *Huber v. Merkel*, interprets state constitution to mean a landowner could use as much groundwater as he wanted regardless of how it affected adjoining property owners. In **1974**, the court overturns that decision and rules in *State of Wisconsin v. Michels Pipeline Construction* that the state regulates groundwater for the common good of all citizens. A property owner is entitled to reasonable use of the groundwater and must consider impacts on the water table and other users.
- Laboratory of Hygiene founded to respond to public health. Human and industrial wastes dumped directly into Wisconsin's rivers and lakes contaminates those waters and contributes to widespread disease and death. Every year, 11 out of 1,000 people die from diarrhea and gastroenteritis, and 1 out of 1,000 died from typhoid fever.
- First size limits for catching fish established: 4 pounds in the round (undressed) for muskellunge and 8 pounds for sturgeon. The first length limit was set in **1905**. It applies to trout (6 inches), with a bag limit of not more than 10 pounds.

### **1909**

- First fishing license: non-resident adult males only \$1.

### **1911**

- Legislature vests the State Board of Health with power to investigate water pollution, removing responsibility from local governments.
- Legislature makes it illegal to waste natural resources, believed to be the first comprehensive natural resource law in the country.

### **1917**

- Legislature makes it illegal to throw any manufacturing refuse or any substance harmful to fish life into streams.

### **1919**

- Legislature passes Chapter 144 of the statutes, which incorporates state supervision over public water supplies.

### **1927**

- Horicon Marsh acquired and slowly restored; protected as a wildlife refuge in **1929**.
- State Committee on Water Pollution is created to protect the economic and social values of clean surface waters as well as to provide healthy drinking water.

### **1929**

- Law declares that the enjoyment of natural scenic beauty is a public right and prohibits issuing permits to build dams contrary to the public interest. The law stopped short of preserving the esthetics of the shoreline.

### **1930s**

- Series of laws passes protecting private wells and home water supplies, increasing safety of drinking water.

### **1930**

- Wisconsin Supreme Court ruling in *Nekoosa-Edwards Paper Co. v. Railroad Commission* establishes that recreational activities such as sailing, canoeing, and skating are public rights.

### **1931**

- UW Professor O.R. Zeman's leaflet "Control Soil Erosion by Crops, Terraces and Dams" provides practical advice for stemming runoff, and starts a decade of soil awareness.

### **1933**

- Federal Civilian Conservation Corps comes to Wisconsin and builds wastewater treatment plants and helps quadruple the number of communities served by such plants.
- Oneida County adopts the first rural zoning ordinance in the nation, setting a model for Wisconsin and the nation.
- First resident "rod and reel" fishing license is established (\$1). In **1947**, the first general inland resident fishing license is established (\$1).

### **1935**

- Law mandates teaching of resource conservation in Wisconsin schools; 50 years later, lawmakers require school districts to develop and implement a kindergarten through 12<sup>th</sup> grade environmental education plan.
- Legislature establishes the Pure Drinking Water Law, providing for registration of well drillers and regulation of well construction and pump installation for private water systems.

### **1937**

- Realizing that the majority of North America's waterfowl breed in the Canadian prairies, conservationists organize Ducks Unlimited to raise money in the United States for waterfowl conservation in Canada. The Wisconsin chapter of that organization now boasts the largest number of members – 52,931 – and leads other chapters in grassroots funding with \$3,924,280.

### **1938**

- The nation's first Soil Conservation District is established in Coon Valley of Vernon County, where the first techniques to slow erosion and soil loss are tested on U.S. farms in the steeply sloped area.

**1945**

- Legislature enacts the High Capacity Well Law requiring state approval before construction of any well with a capacity of 100,000 gallons per day or greater.

**1948**

- Number of licensed anglers exceeds 1 million.

**1949**

- Aldo Leopold's "A Sand County Almanac" which posits that man is an integral part of – not separate from – a land community that includes the soils, waters, plants and animals is published.
- Devil's Lake Concession Corporation takes over concessions at the park, becoming the first such private nonprofit organization to partner with state parks to provide services that otherwise would not be available. Other groups follow, creating a foundation for a formalized Friends Group policy in **1989** and a Statewide Friends Group in **1996**. Today, more than 60 local friends groups work on behalf of state parks.

**By 1950**

- Lake trout population in Lake Michigan collapses from sea lamprey predation following many years of heavy commercial exploitation.

**1951**

- Natural Areas Program is established to buy and protect the best remaining examples of plant and animal communities that were found in Wisconsin before statehood. Wisconsin's program is the first of its kind in the nation.

**1956**

- President Eisenhower creates the Soil Bank set-aside program, which paid farmers to take land out of production and inadvertently increased the intensity of farming – and erosion – on acreage still in production. The **1985** Farm Bill creates the Conservation Reserve Program, which encourages farmers to set aside highly erodible land for 10 years.

**1959**

- Saint Lawrence Seaway opens. United States and Canada build a channel on the St. Lawrence River that allows ocean-going vessels access to Lake Ontario and, together with improved channels between the Great Lakes, links all of the lakes with the Atlantic Ocean. The seaway affects shipping, but also contributes to the introduction of many exotic species into Wisconsin waterways, among them zebra mussels.

**1964**

- U.S. Congress passes Wilderness Act.

**1965**

- State law requires mandatory certification of waterworks and wastewater treatment plant operators.

- Wisconsin becomes the first state to pass a Wild Rivers Act, which gives the Conservation Department the power to assure rivers designated as wild will be preserved in their free-flowing condition and protected from development. Three years later, Congress passes the National Wild and Scenic River Areas Act that includes the protection of 185 miles of the St. Croix-Namekagon River system and a major portion of the Wolf River in Menominee County.
- U.S. Congress acts on Teddy Roosevelt's vision to have parks and open spaces within reach of every citizen by creating the Land & Water Conservation Fund; \$900 million per year of off-shore oil and gas revenues are earmarked for federal, state and local land acquisition and development and historical preservation. Since inception Wisconsin has received over \$117 million: \$53 million for federal projects such as the Apostle Islands and \$64 million for state and local projects.

### 1966

- Wisconsin State Supreme Court decision in *Hixon v. PSC* recognizes the cumulative impacts of construction in navigable waters as a valid concern, and establishes that the state must consider these cumulative impacts when weighing permits to alter the shorelands.
- The Wisconsin Legislature establishes the nation's first shoreland and floodplain zoning program, requiring counties to adopt minimum standards for development to protect water quality, habitat, and scenic beauty along lakes, rivers and in floodplains.

### 1967

- Lake Michigan fishery is in decline, largely because of exotic species introduced in the previous 100 years; alewife comprise an estimated 85 percent of the mass of the fish in the lake.
- Wisconsin bans "hard" detergents that are carried from home washers through sewage plants and into Wisconsin rivers without sufficient treatment. The detergents cause billowing suds that smothered streams and rivers in the 1950s and early 1960s.
- The Conservation Department merges with the Resource Development Department to form the Department of Natural Resources, in a move designed to increase efficiency, integrate environmental programs to better protect natural resources, and be more politically responsive. The new agency has the authority to regulate air and water quality and solid waste disposal and is directed to develop an integrated program to protect air, land and water resources. It becomes the first "superagency" in the country and a model for other states.
- The Office of the Public Intervenor is created as part of the DNR reorganization under Gov. Warren Knowles. The public intervenor, appointed by the Attorney General and guided by a public advisory committee, is empowered to formally intervene or initiate proceedings involving DNR or other state agencies where needed for the protection of public rights in water and other natural resources.
- First coho and then chinook salmon strains from the Pacific North West are stocked in Lake Michigan; these strains did well and grew quickly by feasting on the alewives, reducing their numbers and helping spur the recovery of other species. By 1999 Wisconsin's Great Lakes salmon and trout program involves the stocking of almost 5,000,000 fish each year, and attracts over 150,000 anglers who fish for 3,000,000 hours and spend \$100,000,000 to catch 500,000 salmon and trout annually.

## 1970

- U.S. Environmental Protection Agency created.
- U.S. Congress passes Clean Air Act, establishing standards for six pollutants and giving states power to develop plans to achieve those standards.
- First Earth Day on April 21, founded by Wisconsin Senator Gaylord Nelson, raises people's consciousness about their utter dependence on Earth's air, water and land, and helps build support for landmark environmental legislation to follow.
- Pulp and paper mills discharge about 290 million gallons of wastewater into Wisconsin lakes and rivers, most of it untreated. Fish and aquatic life die from lack of oxygen, pollution covers vital spawning habitat. By **1982**, mills comply with state and federal laws by reducing the amount of oxygen-demanding material by 91 percent and suspended solids by 84 percent, even though paper production increases more than 60 percent.

## 1971

- Wisconsin becomes the first state to ban DDT to protect birds and other wildlife.

## 1972

- Wisconsin Environmental Policy Act passes requiring state agencies to consider the environmental effects of their actions to the extent possible. It also establishes the principle that broad citizen participation should be part of environmental decision making.
- Wisconsin Supreme Court reaffirms the Public Trust Doctrine in *Just v. Marinette*. The doctrine, established in the Northwest Ordinance of **1787** and adopted in the State Constitution, decrees that the waterways are "common highways and forever free" and is the basis for the state's wetland and shoreland laws.
- U.S. Congress passes the Water Pollution Control Act, which makes it illegal to discharge pollutants without permits and establishes two goals: make the nation's waters fishable and swimmable by **1983** and eliminate discharges to waterways. Wisconsin in **1983** becomes the first state to meet the "fishable and swimmable" goals.

## 1974

- U.S. Congress passes Safe Water Drinking Act, which authorizes EPA to establish nationwide public drinking water standards and delegate primary enforcement responsibility to states.

## 1976

- Wisconsin issues its first fish consumption advisory, warning people not to eat Great Lakes fish contaminated with PCBs. Today, people are encouraged to limit their consumption of certain fish from about 370 lakes and rivers where those species have been found to contain PCBs or mercury. In **2001**, the fish consumption advisory for mercury is expanded to cover fish caught from all lakes in the state, based on findings by the Academy of Sciences and the state Health and Family Services Department.

## 1977

- Nonpoint Source Pollution Program is created to protect Wisconsin waters from runoff pollution by offering to share costs with landowners and communities that take steps to keep soil, fertilizer, street debris and construction site dirt from washing into

streams and lakes. Nonpoint source pollution is now considered to be the state's greatest water quality concern, degrading or threatening about 40 percent of the streams, about 90 percent of inland lakes, many of the Great Lakes harbors and coastal waters, and a substantial portion of groundwater resources in the state.

#### **1984**

- Wisconsin enacts Chapter 160, establishing the most comprehensive program in the U.S. for managing and protecting groundwater; it helps protect 16,000 public water supplies and 750,000 public wells from contamination in Wisconsin and serves as a national model.

#### **1985**

- First off-reservation spearing harvest by Chippewa Indian tribes following federal court rulings that the tribes retained the rights for off-reservation harvest in treaties signed in 1837 and 1842 that ceded the northern third of Wisconsin to the federal government.
- In the Great Lakes Charter, U.S. and Canada identify 42 Great Lakes harbors and communities where toxicants are contaminating aquatic life and water. Wisconsin begins preparing remedial action plans for handling dirty sediments in polluted harbors in Green Bay, Superior, Menominee, Sheboygan and Milwaukee.

#### **1986**

- Wisconsin becomes first state to pass a law to control acid rain to protect sensitive lakes in northern Wisconsin and surpasses the goal of cutting sulfur dioxide emissions by half. A partnership, which is established among the state, utilities and the university to research acid rain's effects on natural resources, becomes a model for research and policy-setting. Only a few years earlier, combined sulfur dioxide emissions from communities and businesses regularly exceeded health standards in several regions of Wisconsin.

#### **1989**

- Knowles-Nelson Stewardship Program is established and authorized to issue up to \$250 million in state bonds to buy and develop land for recreational uses, wildlife habitats, fisheries and natural areas. Program is reauthorized in **1999** for 10 years and allowed to issue \$46 million in state bonds to buy recreational and other valuable conservation lands and pay for recreational improvements.

#### **1990s**

- Era of increasing involvement of individuals, civic groups, and others in helping to tackle natural resources problems and make the most of opportunities. This shift is spurred by the growing realization of the collective impact that individual decisions and actions have on the environment and that state agencies have limited money and staff to carry out the work.

#### **1990**

- DNR, the Wisconsin Association of Lakes and the University of Wisconsin-Extension launch the Wisconsin Lakes Partnership, a collaborative partnership to accomplish watershed restoration and lake protection goals.

## **1992**

- Wisconsin passes administrative rules requiring phosphorus removal for municipal wastewater treatment plants in the remainder of the state that is not in the Great Lakes drainage basin and for many industries statewide.

## **1993**

- Breach in treatment at a Milwaukee water treatment plant leads to a waterborne disease outbreak that sickens more than 400,000 people, sends more than 4,000 to the hospital, and contributes to the deaths of at least 69 people. Also opens new era in monitoring drinking water drawn from lakes or rivers for microbial contaminants.

## **1996**

- DNR becomes a cabinet agency, with Gov. Tommy G. Thompson instead of the Natural Resources Board appointing the Secretary. The Public Intervenor's office is abolished.
- Amendments to the federal Safe Drinking Water Act establish a new charter for public water systems including new prevention approaches, improved customer information, changes to the regulatory program and the first revolving loan program to fund local water systems.
- DNR embarks on a major reorganization intended to create a better integrated and more decentralized, user-friendly, and locally connected organization. Key themes included geographic-based natural resources management, customer service, and an increased emphasis on working through collaboration and partnerships. "Basin Partnerships" are established, to be part of the growing movement known as community-based natural resources management.

## **2000**

- Great Spring Waters of America, a Perrier subsidiary, seeks to drill high capacity wells in Adams County, sparking citizen opposition to the plan; raising awareness of the interconnectedness of groundwater and lakes, rivers and wetlands; and highlighting Wisconsin's weak, half-century old high capacity well law. Limited by that law, DNR secures an agreement with Perrier that provides the environmental protections the law lacks. Perrier gets permit approval, but must conduct comprehensive testing before the state sets a safe location and pumping rate. In 2002, Perrier lets the permit approval lapse in Wisconsin, saying they've achieved their Midwestern plan with new high capacity wells in Michigan.
- The Natural Resources Board instructs DNR to start writing rules aimed at reducing airborne mercury that ends up in Wisconsin lakes and rivers, and eventually, in some fish and the people who eat them. The rules would seek to reduce mercury emissions from sources like electric utilities and government-owned heat and power facilities. The board's action responds to a petition filed by Wisconsin Environmental Decade and signed by 26 environmental and sport fishing groups, lake associations and several lawmakers

## **2001**

- Wisconsin becomes the first state to pass legislation to restore protection to small, isolated wetlands left unprotected in Wisconsin as a result of the U.S. Supreme

Court ruling. The action extends protection to up to 1 million of the 5 million acres of wetlands left in Wisconsin.

- The last of four dams on the Baraboo River is removed, creating the nation's longest free-flowing stretch of river (120 miles) that is restored as a result of a dam removal. Wisconsin leads the nation in using selective removal of obsolete or unsafe dams as tool to restore rivers. More than 735 dams built over Wisconsin's recorded history have been removed, including more than 100 dams that have been removed in the last 20 years.

## **2002**

- Wisconsin passes the nation's most comprehensive package of rules to reduce polluted runoff from cities, farms, construction sites and roads. Such pollution is the largest remaining threat to Wisconsin's waters.
- Community-based conservation blossoms, with thousands of citizens spending their time, energy and money volunteering for more than 600 lake organizations, 100 river and watershed management groups, 60 land trusts, and hundreds of angler and conservation groups dedicated to cleaning up, protecting and enhancing their home waters.